



Statement Submitted for the Record  
House Committee on Ways and Means

Hearing on  
“The Interaction of Tax and Financial Accounting on Tax Reform”  
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Aparna Mathur<sup>1</sup>  
Resident Scholar in Economic Policy Studies  
American Enterprise Institute

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*The views expressed in this testimony are those of the author alone and do not necessarily represent those of the American Enterprise Institute.*

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<sup>1</sup> Phone - 202.862.6026; fax - 202.862.5924; Email - [Aparna.Mathur@aei.org](mailto:Aparna.Mathur@aei.org)  
Address - 1150 17<sup>th</sup> Street N.W., Washington, D.C 20036

## I. INTRODUCTION

Chairman Camp, Ranking Member Levin, and Members of the Committee, my name is Aparna Mathur, and I am a Resident Scholar at the American Enterprise Institute. Thank you for the opportunity to provide testimony on the important topic of tax reform.

This hearing on the interaction of tax and financial accounting attempts to gauge how publicly-listed companies in compliance with financial accounting rules respond to tax policy. More specifically, what would be the impact of a corporate tax reform on the investment decisions of these companies. When we talk about corporate tax reform, there are mainly two types of major reforms that are discussed. The first is a reduction in the headline corporate tax rate. The second is a reform of the various deductions and credits that are allowed under the tax code, which are often discussed in the context of revenue raising.

While reducing statutory rates would provide a benefit to existing investments and improve the valuation of the company from the point of view of the shareholders, expanding expensing and accelerated depreciation provisions would generate returns over the lifetime of the company by improving cash flows and thereby enhancing firm value. Both types of reforms are critical to firms that are deciding what new investments to undertake and which activities will generate the highest return. In economic terms, the user cost of capital, or the implicit annual cost of investing in physical capital, is determined by not only the headline corporate tax rate, but also other factors such as the rate of depreciation as well as the interest rate. Therefore, any changes to either the tax rates or the provisions affecting the return from capital, would lead to a change in the user cost, which would affect physical capital investments by firms.

In the second section of this submitted record, I clarify the distinction between statutory, effective average and effective marginal corporate tax rates from the point of view of an investor deciding where to locate production in a global economy. Then in the third section I will proceed to describe how accelerated depreciation and expensing provisions offer as many, or more, benefits to the overall economy for each dollar of foregone revenue than statutory rate cuts.

## II. STATUTORY, EFFECTIVE AVERAGE, AND EFFECTIVE MARGINAL TAX RATES

As is widely acknowledged, high statutory corporate tax rates in the U.S. make investments in the U.S. uncompetitive relative to other OECD economies. This has a negative effect on profitability and revenues in the U.S. as the limited availability of capital, or the lack of high quality capital and machinery, makes it tougher for workers to be productive. In research that we have done at the American Enterprise Institute, we show that this lower productivity of workers then translates into lower wages for the poor and middle class workers, employed in manufacturing jobs.<sup>1</sup> This is the reason why despite the fact that the U.S. has one of the highest statutory corporate tax rates in the OECD (at 39.2 percent if we include state and local taxes), the U.S. collects some of the lowest corporate tax revenues in the OECD.

In Table 1 in the Appendix, we show the distribution of corporate tax rates in the OECD for the year 2011. The top national statutory corporate tax rates in 2011 among the 31 members

of the Organization for Economic Cooperation and Development (OECD) ranged from 8.5 percent in Switzerland and 12.5 percent in Ireland to 35 percent for the U.S. Hence within the OECD countries, the U.S. has the highest statutory rate of taxation at the national level. The picture changes only marginally when we add the sub national corporate tax rates to the top national rate. In the case of the United States, the average top statutory rate imposed by states in 2011 added just over 4 percent (after accounting for the fact that state taxes are deducted from federal taxable income)—for a combined top statutory rate of 39.2 percent. Among all OECD countries in 2011, the United States' top statutory combined corporate tax rate was the second highest, after Japan's at 39.5 percent. In 2012, the United States will be left with the highest national and combined corporate tax rates in the world when Japan introduces a planned 5 percentage point reduction to its top rate.<sup>ii</sup>

The argument has often been made that the statutory tax rate is an imperfect measure of tax competitiveness because it does not take into account the breadth of the tax base<sup>iii</sup>. While the statutory or headline rate may be an important factor for firm profitability, firms ultimately base decisions about where to locate investments and capital using some estimate of their future economic returns from that investment. These returns are a function of not just the headline rate, but tax depreciation and expensing rules, research and development tax credits, the interest deductibility provision, and others. Thus the effective tax rate, which takes into account all these provisions, is an important factor in firm investment decisions. Research in economics has shown that capital flows from high tax to low tax countries, and that effective tax rates are responsible for driving these flows.<sup>2</sup>

Countries that substitute high rates for a narrow base, such as the United States, will appear more uncompetitive on the basis of statutory rates alone. "Effective" tax rates resolve this issue by taking into account tax offsets, the present value of depreciations, and other deductions that narrow the base.<sup>iv</sup> There are two principle ways to measure effective tax rates. As it turns out, the United States is nearly as uncompetitive based on these measures as it is based on statutory rates alone.

One way to measure these effective tax rates is by means of the "effective average tax rate" (EATR). The simplest way to understand the effective average tax rate is by means of an example. The United States has a federal statutory rate of 35 percent plus approximately 4 percent from States and municipalities for a combined rate of 39 percent. It then allows for deductions from depreciation allowances, debt financing, loss offsets and expensing, which cause the actual tax liability to be reduced. For example, suppose a corporation is planning to build a new plant. The new plant is expected to generate \$100 in profits over its lifetime, and the total amount of deductions is \$50. In other words, for \$100 in profits the corporation is only taxed on \$50. As a result, its taxable income is \$50, and its tax liability is 39 percent of \$50 or \$20. In this example, the effective average tax rate on the plant's income would be \$20/\$100 or 20 percent. A firm would find the EATR useful when deciding which country to invest in with a new plant. Countries with high EATRs would lose, while capital would flow to the low EATR jurisdictions.

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<sup>2</sup> Gordon, Roger H. & Hines, James Jr, 2002. "[International taxation](#)," [Handbook of Public Economics](#), in: A. J. Auerbach & M. Feldstein (ed.), *Handbook of Public Economics*, edition 1, volume 4, chapter 28, pages 1935-1995 Elsevier.

Another related concept is the effective marginal tax rate (EMTR). This shows the tax liability on an additional dollar of investment. So, it would be particularly relevant for the scaling of projects. For instance, once a firm decides to build a plant, the EMTR would capture the tax liability on the marginal or additional investment of adding a machine to the production line. Suppose the machine costs \$50. If the firm can deduct 50 percent of the cost of this machinery, and the firm expects a return of \$66 over the lifetime of this machinery, then the marginal effective tax rate would be  $0.39^*$   $(\$66 - \$25)/\$66$  or 24 percent.

In work with Kevin Hassett at AEI, we used the methodology described in a 1999 paper by Michael Devereux and Rachel Griffiths for calculating the effective average and effective marginal rates for investments in plants and machinery. Intuitively, the EMTR in this methodology is calculated as that tax rate which makes the post-tax returns from the investment equal to the cost of the investment. In other words, the firm breaks-even on the last or marginal investment after allowing for taxes. The EATR is calculated as the difference between the pre- and post-tax economic profits expressed as a fraction of pre-tax economic profits. Hence when a firm is deciding between locating a plant in one of two locations, it will compare the EATR to see what the average post-tax return is likely to be in both locations, and move to the location with the lower EATR. On the other hand, when it has to decide whether to expand the scale of its project, it has to look at the EMTR on the marginal investment.

Table 2 shows that relative to the other OECD countries, the U.S. EATR is nearly 10 percentage points higher than the average for all the OECD countries. Therefore, not only is the U.S. much worse when we look at the statutory headline rate—it scores equally badly when we compare effective average tax rates. Further, the U.S. is only second in the OECD when we use the EMTR to rank countries.

As a check on our results, we compared our relative rankings to those obtained by the World Bank for a study done in 2009. The World Bank approximates the effective rate using an alternative methodology. This approach considers a representative company in a typical year of operation and computes the taxes it would pay if located in different countries as a percent of its financial income using standardized financial accounting (a “book” measure of effective tax rate). In Table 3, we show the effective rates computed by the World Bank using the book method. While the actual value of the rates computed varies under our methodology relative to the World Bank methodology, as we may expect, there is little improvement in the U.S. position relative to other countries.

A few papers, such as one by Kevin Markle and Douglas Shackelford, use actual tax liability data to approximate measures of the effective average and marginal rates.<sup>3</sup> The advantage of tax liability data is that it can account for all the different types of deductions, allowances and credits that may be specific to each company or industry. However, a disadvantage of this approach is that any firm’s actual tax liability may be a function of its specific tax planning strategies, whether it’s a multinational with tax haven operations, whether it’s more or less profitable than other firms and so on. Therefore, tax liabilities may be firm-specific rather than country-specific. However, even using this measure, the paper concludes that Japanese firms faced the highest effective average tax rates over this period followed by U.S.

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<sup>3</sup> [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1770391](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1770391)

multinationals. Further, while EATRs have been falling for the last two decades worldwide, the ordinal rank from high-tax countries to low-tax countries has changed little.

The United States' is currently underperforming in global tax comparisons. The United States' top statutory tax rates will soon be the highest in the OECD, and the U.S. effective average and effective marginal tax rates are far above the OECD average. Any effort at corporate tax reform is therefore incomplete without a push towards addressing not only the high statutory rates, but also the relatively high effective average and marginal rates. These rates are the best indicators for capital investors of their true tax liability-much more so than the statutory rates. For instance, by our calculation, for the U.S., the statutory rate is nearly 10 percentage points higher than the effective average rate and nearly 17 percentage points higher than the effective marginal tax rate. This would be comforting if it were not for the fact that relative to other OECD countries, the U.S. is one of the worst performers on this score. The average effective tax rate for all OECD countries excluding the U.S. is 20.5 percent, while the effective marginal tax rate is 17.5 percent. The corresponding values for the U.S. are 29 percent and 23.6 percent. Therefore, while much media attention has been focused on the statutory rates, reforming effective rates should clearly be an area of urgent concern for policy makers as well.

In the final section, I provide a preliminary analysis of how effective tax rates are affected by either rate cuts or the introduction of permanent expensing provisions.

### III. AN ANALYSIS OF THE IMPACT OF EXPENSING AND STATUTORY RATE CUTS ON EFFECTIVE CORPORATE TAX RATES

The most common refrain from tax-reform proponents is "Lower the rates; broaden the base" This mantra is repeated emphatically and often. However, it ignores one of the lowest hanging fruits for corporate tax reform, namely, the immediate expensing of business investments. In this section, I briefly sketch a few of the benefits of allowing expensing, and then I attempt to compare the effect of expensing on marginal tax rates to the effect of statutory rate cuts.

Expensing benefits businesses by increasing the present value of the deductions that are allowed for investment costs. Whereas under depreciation provisions, investment costs must be deducted over time, under expensing investment costs are deducted immediately. With full expensing, the value of the deduction will exactly offset the present value return on the investment over its lifetime, so the effective marginal tax rate on investment will be zero. This will cause more investment to be undertaken, an expanded capital accumulation in the economy, and in the long run greater growth. The benefits of expensing are comprehensively described in a 2010 Center for American Progress/Brookings Institution paper by economist Alan Auerbach from UC Berkley<sup>v</sup>; a Treasury Department Background Paper on business taxation from 2007;<sup>vi</sup> and the forthcoming book on the "X-Tax" by my colleague Alan Viard and Robert Carroll from PricewaterhouseCoopers.<sup>vii</sup>

For each dollar of revenue lost, expensing can sometimes provide more investment than statutory rate cuts since it only applies to new investments, not existing ones. In the long run, the

cost of expensing would be negligible according to estimates by economists Gordon, Kalamokidis, and Slemrod (2004).<sup>viii</sup> The main costs from expensing will likely come from transition relief for existing investments. Given the benefits of lowering effective rates, which I describe above, it is illuminating to see how even partial expensing can provide substantial decreases in effective marginal tax rates.

In Table 4, I use a calculator of effective marginal tax rates published by the Congressional Budget Office in 2007 to analyze the effect of a 50% expensing provision compared to a 10 percentage point statutory rate cut. Whereas the effective tax rate model that I describe above is extremely valuable for doing cross-country analysis, the CBO calculator is better suited to analyzing specific tax code changes for the United States. Compared to current policy, a statutory rate cut from 35% to 25% would lower the EMTR on total business investment from 24.2% to 20.8%. If we keep the current 35% top statutory rate and allow 50% expensing of business investment, then the EMTR for total business investment falls from 24.2% to 16.6%.

If the goal of policy is to spur investment in the United States and raise revenues, we need to focus on lowering effective rates, rather than simply reducing the top rate. Therefore, the provision of expensing (or accelerated depreciation) is a valuable tool and should not be left out of the policy debate.

TABLE 1: 2011 TOP STATUTORY CORPORATE INCOME TAX RATES

Country	Central Govt.	Combined
Switzerland	8.5	21.2
Ireland	12.5	12.5
Germany	15.8	30.2
Canada	16.5	27.6
Czech Republic	19.0	19.0
Hungary	19.0	19.0
Poland	19.0	19.0
Slovak Republic	19.0	19.0
Chile	20.0	20.0
Greece	20.0	20.0
Iceland	20.0	20.0
Slovenia	20.0	20.0
Turkey	20.0	20.0
Estonia	21.0	21.0
Korea	22.0	24.2
Luxembourg	22.1	28.8
Israel	24.0	24.0
Austria	25.0	25.0
Denmark	25.0	25.0
Netherlands	25.0	25.0
Portugal	25.0	26.5
Finland	26.0	26.0
United Kingdom	26.0	26.0
Sweden	26.3	26.3
Italy	27.5	27.5
New Zealand	28.0	28.0
Norway	28.0	28.0
Australia	30.0	30.0
Mexico	30.0	30.0
Spain	30.0	30.0
Japan	30.0	39.5
Belgium	34.0	34.0
France	34.4	34.4
United States	35.0	39.2
Average Excluding U.S.	23.3	25.1

SOURCE: OECD

TABLE 2: EATR, EMTR, and Statutory Rates

	2010 EATR	2010 EMTR	2010 Statutory Combined
Australia	22.2%	17.0%	30.0%
Austria	20.8%	18.2%	25.0%
Belgium	22.3%	13.9%	34.0%
Canada	25.5%	23.4%	29.5%
Chile	13.9%	11.5%	17.0%
Czech Republic	18.4%	18.1%	19.0%
Denmark	19.9%	16.5%	25.0%
Finland	20.7%	17.3%	26.0%
France	27.5%	23.8%	34.4%
Germany	24.2%	20.7%	30.2%
Greece	17.9%	13.4%	24.0%
Hungary	15.7%	13.4%	19.0%
Ireland	10.9%	9.7%	12.5%
Iceland	-	-	15.0%
Italy	24.3%	22.6%	27.5%
Japan	33.0%	30.5%	39.5%
Korea	18.1%	13.6%	24.2%
Luxembourg	20.1%	13.9%	28.6%
Mexico	28.4%	27.7%	30.0%
Netherlands	19.4%	15.1%	25.5%
New Zealand	-	-	30.0%
Norway	24.2%	22.1%	28.0%
Poland	16.2%	14.1%	19.0%
Portugal	18.3%	12.2%	26.5%
Slovak Republic	19.2%	19.3%	19.0%
Spain	27.5%	26.3%	30.0%
Sweden	18.5%	12.6%	26.3%
Switzerland	15.4%	10.9%	21.2%
Turkey	13.1%	7.3%	20.0%
United Kingdom	22.3%	18.8%	28.0%
United States	29.0%	23.6%	39.2%
Average Excluding U.S.	20.5%	17.2%	25.5%



TABLE 3: Comparison with World Bank Calculations

	2009 EATR	2009 World Bank EATR Estimate
Australia	22.2%	25.9%
Austria	20.8%	15.7%
Belgium	22.3%	4.8%
Canada	27.1%	9.8%
Chile	13.9%	
Czech Republic	19.4%	7.4%
Denmark	19.9%	21.9%
Finland	20.7%	15.9%
France	27.5%	8.2%
Germany	24.2%	22.9%
Greece	18.6%	13.9%
Hungary	16.6%	16.7%
Ireland	10.9%	11.9%
Iceland	-	6.9%
Italy	24.3%	22.8%
Japan	33.0%	27.9%
Korea	18.1%	15.3%
Luxembourg	20.1%	4.1%
Mexico	26.5%	
Netherlands	19.4%	20.9%
New Zealand	-	30.4%
Norway	24.2%	24.4%
Poland	16.2%	17.7%
Portugal	18.3%	14.9%
Slovak Republic	19.2%	7.0%
Spain	27.5%	20.9%
Sweden	18.5%	16.4%
Switzerland	15.4%	8.9%
Turkey	13.1%	8.9%
United Kingdom	22.3%	23.2%
United States	28.9%	27.6%
Average Excluding U.S.	20.6%	15.9%

TABLE 4: COMPARISON OF 25% STATUTORY RATE TO 50% EXPENSING

EMTR (percent)	CURRENT LAW	SCENARIO 1	SCENARIO 2
	no expensing 35% rate	<b>50% expensing</b> 35% rate	no expensing <b>25% rate</b>
Total business investment	24.2%	16.6%	20.8%
Corporate	26.3%	17.8%	20.9%
Non-Corporate	20.6%	14.6%	20.6%

<sup>i</sup> <http://www.aei.org/papers/economics/fiscal-policy/taxes/spatial-tax-competition-and-domestic-wages/>

<sup>ii</sup> <http://online.wsj.com/article/BT-CO-20101222-702799.html>

<sup>iii</sup> See Jane G. Gravelle and Thomas L. Hungerford, “Corporate Tax Reform: Should We Really Believe the Research?” *Tax Notes*, Oct. 27, 2008, p. 419, *Doc 2008-18748*, or *2008 TNT 209-18*; and Aviva Aron-Dine, “Fiscally Responsible Corp. Tax Reform Could Benefit the Economy,” *Tax Notes*, Aug. 18, 2008, p. 691.

<sup>iv</sup> These calculations are done for midsize companies. This is the approach used by the World Bank in its annual *Doing Business* reports. According to the World Bank *Doing Business* 2011 report, the U.S. book effective tax rate in 2009 was quite high by global standards, ranking 162nd out of 183 countries (89th percentile), and was also high by comparison to OECD member countries, ranking 3rd highest out of 30 (90th percentile). The book effective rate places the United States a little better than the statutory rate does, but not much.

<sup>v</sup> Auerbach, Alan J. *A Modern Corporate Tax*. DC: *Hamilton Project/CAP*, December 2010.

<sup>vi</sup> U.S. Department of the Treasury, “Background Paper.” Paper presented in the Treasury Conference on Business Taxation and Global Competitiveness, U.S. Department of the Treasury, July 23, 2007.

<sup>vii</sup> Carroll, Robert, and Viard, Alan D. *Progressive Consumption Taxation: The X Tax Revisited*. DC: The AEI Press, forthcoming.

<sup>viii</sup> Gordon, Roger, Kalambokidis, Laura, and Slemrod, Joel. “Do we *now* collect any revenue from taxing capital income?” *Journal of Public Economics* 88 (2004): 981-1009.